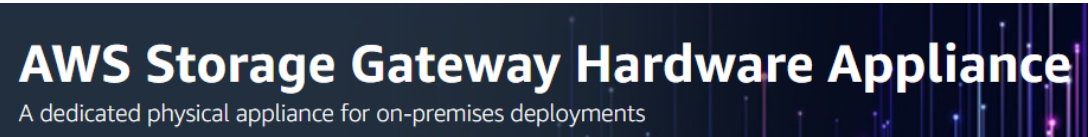



Exhibit B

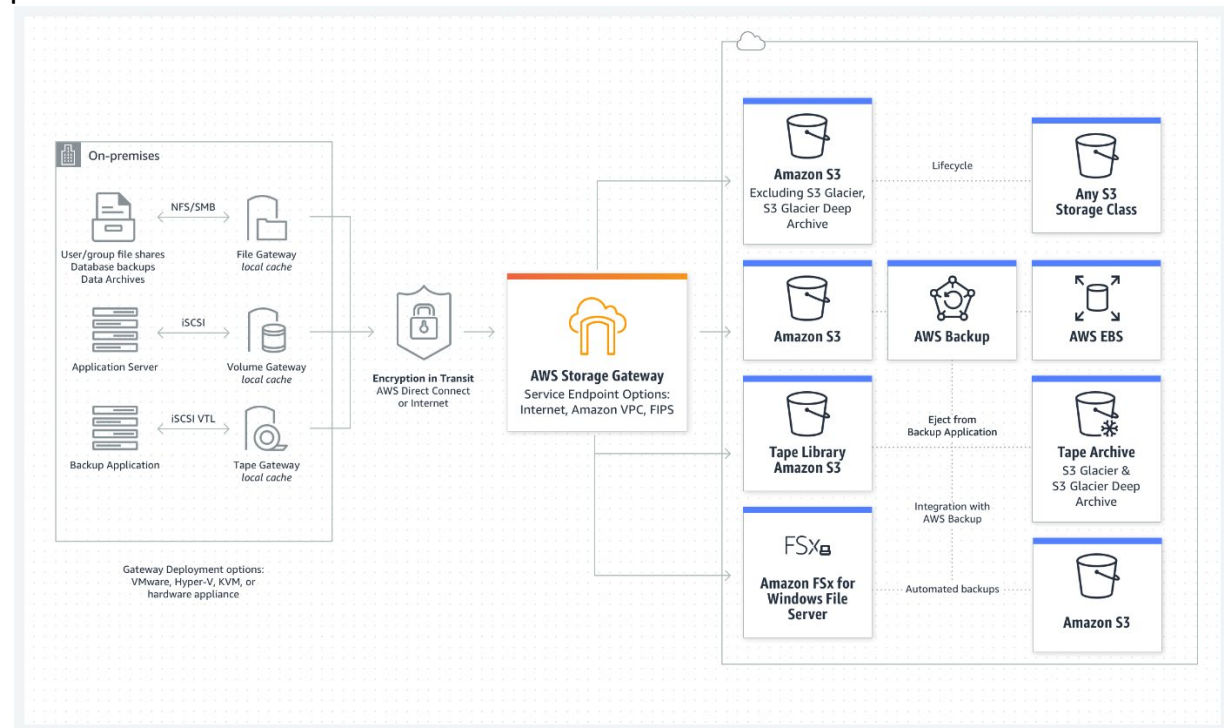
‘988 Patent

Infringement Chart for US 6,549,988 vs. Amazon

Claim 1

Claim Language	Amazon Evidence
<p>1. A computer suitable for use in a data storage system comprising a network interconnecting a plurality of such computers, the computer comprising</p>	<p>The AWS Storage Gateway Hardware Appliance is a computer(server) that suitable for use in a data storage system,</p> <div data-bbox="730 540 1812 675">  <p>AWS Storage Gateway Hardware Appliance A dedicated physical appliance for on-premises deployments</p> </div> <p><u>The AWS Storage Gateway Hardware Appliance is a physical, standalone, validated server configuration for on-premises deployments. It comes pre-loaded with Storage Gateway software, and provides all the required CPU, memory, network, and SSD cache resources for creating and configuring File Gateway, Volume Gateway, or Tape Gateway. The Storage Gateway Hardware Appliance is designed to provide you with a simple out of the box experience that does not require any additional infrastructure, and is managed from the AWS Console or API. You can order the Storage Gateway Hardware Appliance directly from the AWS Console using a streamlined procurement process.</u></p> <p>Frequently, branch offices, research and development departmental workgroups, and laboratory or industrial sites lack the on-premises infrastructure to run a virtual machine appliance, hypervisors, server clusters, and networked storage systems. Building and managing this infrastructure, or waiting for a future budgeting cycle to begin work or scale operations, simply may not make sense. The Storage Gateway Hardware Appliance can be dropped in and rapidly set up, providing local applications access to virtually unlimited cloud storage for a wide variety of use cases.</p> <div data-bbox="842 1049 1709 1305">  <p>AWS Storage Gateway Hardware Appliance</p> </div> <p>Source: https://aws.amazon.com/storagegateway/hardware-appliance/</p>

the data storage system comprising a network interconnecting a plurality of such computers

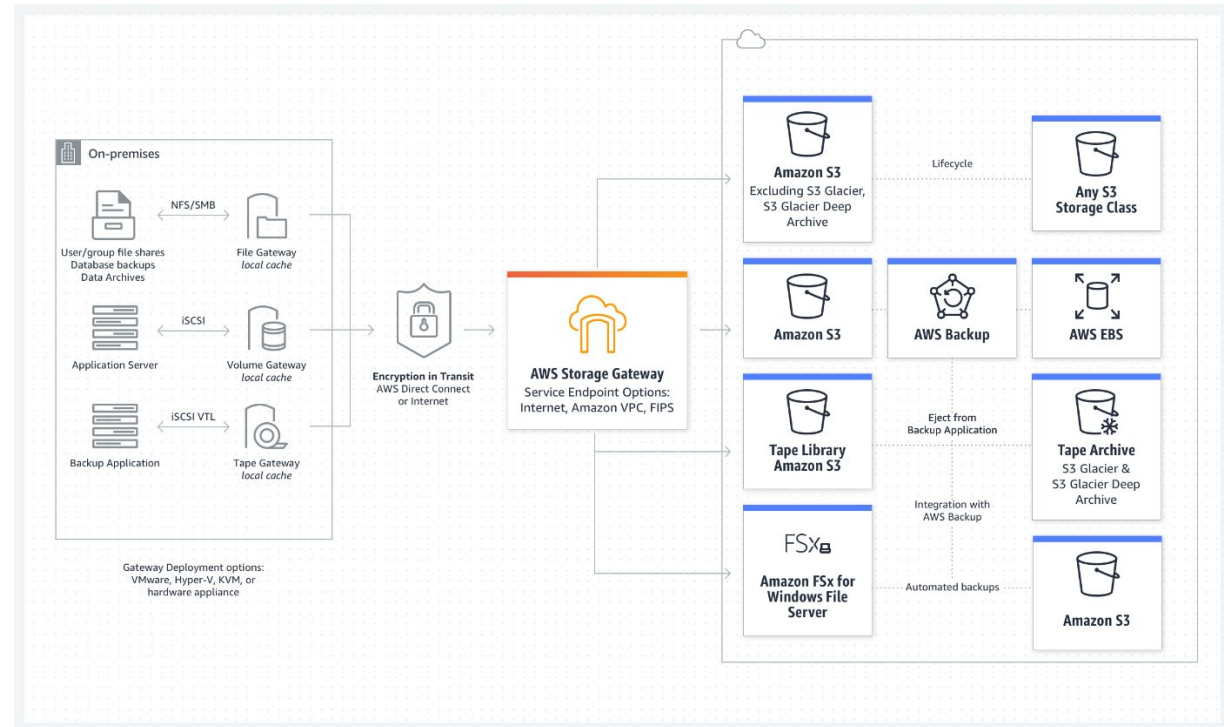


How it works

Source: <https://aws.amazon.com/storagegateway/>

an I/O channel adapter for accepting an incoming I/O request from a host;


The AWS Storage Gateway Hardware Appliance comprise an I/O channel adapter (AWS Direct Connect) for accepting an incoming I/O request from a host (on-premises)



How it works

Source: <https://aws.amazon.com/storagegateway/>

AWS Direct Connect is an I/O channel

	<h3>How it works</h3> <p>The AWS Direct Connect cloud service is the shortest path to your AWS resources. While in transit, your network traffic remains on the AWS global network and never touches the public internet. This reduces the chance of hitting bottlenecks or unexpected increases in latency. When creating a new connection, you can choose a hosted connection provided by an AWS Direct Connect Delivery Partner, or choose a dedicated connection from AWS—and deploy at over 100 AWS Direct Connect locations around the globe. With AWS Direct Connect SiteLink, you can send data between AWS Direct Connect locations to create private network connections between the offices and data centers in your global network.</p>  <p>Dedicated Interconnect overview Source: https://cloud.google.com/storage-transfer/docs/on-prem-overview</p>
configuration manager software for enabling said I/O channel adapter to decide whether (i) to route said request to	configuration manager software for enabling said I/O channel adapter to decide whether (i) to route said request to cache, (ii) to route said request to disk, accessed directly (Access operation)

cache, (ii) to route said request to disk, or (iii) to reject said request;

Q: Can I directly access objects stored in S3 by using file gateway?

A: Yes. Once objects are stored in S3, you can access them directly in AWS for in-cloud workloads without requiring file gateway. Your objects inherit the properties of the S3 bucket in which they are stored, such as lifecycle management, and cross-region replication.

Source: <https://aws.amazon.com/storagegateway/faqs/>

Write Operations (Write-Back Cache)

When a file is written to the file gateway over NFS, the gateway first commits the write to the local cache. At that point, it acknowledges the write success to the NFS client, which enables low latency on writes. After the write cache is populated, the file is put into the associated Amazon S3 bucket asynchronously to increase local performance of Internet transfers.

When an existing file is modified, the file gateway transfers only the newly written bytes to the associated Amazon S3 bucket. This uses Amazon S3 API calls to construct a new object from a previous version in combination with the newly uploaded bytes. This feature reduces the amount of data that is required to be transferred when NFS clients modify existing files within the file gateway.

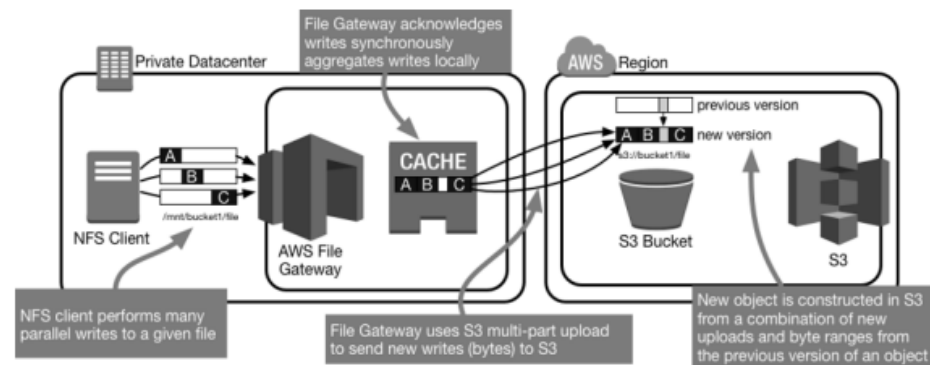
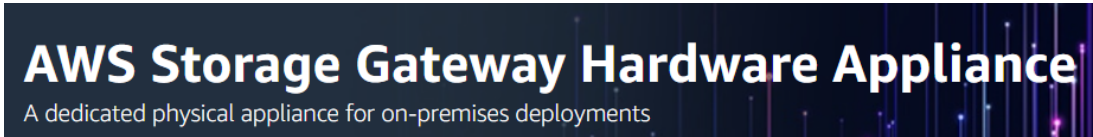
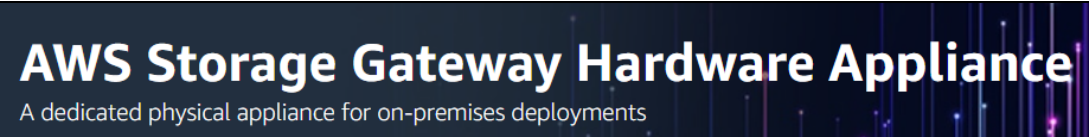


Figure 4: File gateway write operations

	Source: https://d1.awsstatic.com/whitepapers/Storage/aws-storage-gateway-file-gateway-for-hybrid-architectures.pdf Page 9 of 18
a network adapter for handling network control traffic;	<p>The AWS Storage Gateway Hardware Appliance comprises network adapter for handling network control traffic</p>  <p>AWS Storage Gateway Hardware Appliance A dedicated physical appliance for on-premises deployments</p> <p>Appliance Details</p> <p><u>The Storage Gateway Hardware Appliance comes with Storage Gateway software pre-installed on a validated server configuration.</u> It is designed to provide consistent performance across deployments, making ongoing management easy. The current specifications include:</p> <ul style="list-style-type: none"> • 2 x Intel Xeon Silver 4114 2.20 GHz processors with 10 cores each • 128 GB DDR4 RAM • Choice of 5 TB or 12 TB usable enterprise SSD cache storage • <u>4-port 10 Gigabit DA/SFP+ based network card</u>, supports 1/10G Intel compatible optical modules (SR or LR), Twinax DACs, 1/10G-BaseT copper transceivers • <u>3 year hardware warranty</u>, with next business day parts replacement and onsite field technician support - accessed and coordinated through your normal AWS support channels <p>Source: https://aws.amazon.com/storagegateway/hardware-appliance/</p>
a cache memory;	The AWS Storage Gateway Hardware Appliance comprises a cache memory

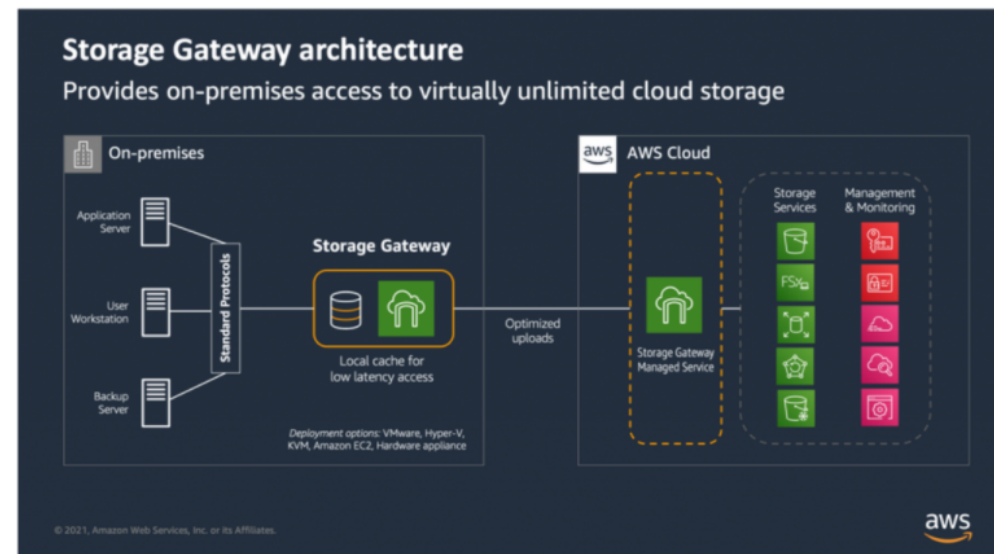
	 <p>AWS Storage Gateway Hardware Appliance A dedicated physical appliance for on-premises deployments</p> <h3>Appliance Details</h3> <p><u>The Storage Gateway Hardware Appliance comes with Storage Gateway software pre-installed on a validated server configuration.</u> It is designed to provide consistent performance across deployments, making ongoing management easy. The current specifications include:</p> <ul style="list-style-type: none"> • 2 x Intel Xeon Silver 4114 2.20 GHz processors with 10 cores each • 128 GB DDR4 RAM • <u>Choice of 5 TB or 12 TB usable enterprise SSD cache storage</u> • 4-port 10 Gigabit DA/SFP+ based network card, supports 1/10G Intel compatible optical modules (SR or LR), Twinax DACs, 1/10G-BaseT copper transceivers • 3 year hardware warranty, with next business day parts replacement and onsite field technician support - accessed and coordinated through your normal AWS support channels <p>Source: https://aws.amazon.com/storagegateway/hardware-appliance/</p>
front-end software for handling I/O requests arriving at the I/O channel adapter or the network adapter;	The AWS Storage Gateway Hardware Appliance comprises front-end software (standard storage Protocol) for handling I/O requests arriving at the I/O channel adapter or the network adapter);

Introduction to Storage Gateway

A Storage Gateway can be deployed directly in your on-premises environment as a virtual machine (VMware ESXi, Microsoft Hyper-V, Linux KVM), in AWS as an Amazon EC2 instance, or as a pre-configured standalone hardware appliance. Moreover, Storage Gateway requires no special networking or additional hardware, while providing:

- Support for standard storage protocols such as NFS, SMB, iSCSI, and iSCSI VTL, so existing applications can use AWS Cloud storage without changes.
- A local cache for low-latency access for your applications.
- Optimized and secure data transfers between on premises and the AWS Cloud.
- Interoperability with other AWS Cloud storage services such as Amazon S3, Amazon S3 Glacier, Amazon FSx for Windows File Server, Amazon EBS, and AWS Backup.
- Integration with other AWS services such as AWS Key Management Service (KMS), AWS Identity and Access Management (IAM), AWS CloudTrail, and Amazon CloudWatch.

Storage Gateway combines the benefits of on-premises infrastructure with all the benefits of the cloud.



Cloud storage in minutes with AWS Storage Gateway (updated)

Source: <https://aws.amazon.com/blogs/storage/cloud-storage-in-minutes-with-aws-storage-gateway-updated/>

cache manager software, responsive to said front-end software, for handling data stored in said cache memory; and

The AWS Storage Gateway Hardware Appliance comprises cache manager software (write operation read operations), responsive to said front-end software, for handling data stored in said cache memory;

Read Operations (Read-Through Cache)

When an NFS client performs a read request, the file gateway first checks the local cache for the requested data. If the data is not in the cache, the gateway retrieves the data from Amazon S3 using Range GET requests to minimize data transferred over the Internet while repopulating the read cache on behalf of the client.

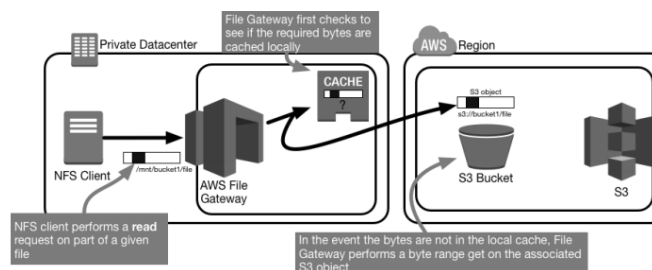


Figure 3: File gateway read operations

Source: <https://d1.awsstatic.com/whitepapers/Storage/aws-storage-gateway-file-gateway-for-hybrid-architectures.pdf> Page 8 of 18

Write Operations (Write-Back Cache)

When a file is written to the file gateway over NFS, the gateway first commits the write to the local cache. At that point, it acknowledges the write success to the NFS client, which enables low latency on writes. After the write cache is populated, the file is put into the associated Amazon S3 bucket asynchronously to increase local performance of Internet transfers.

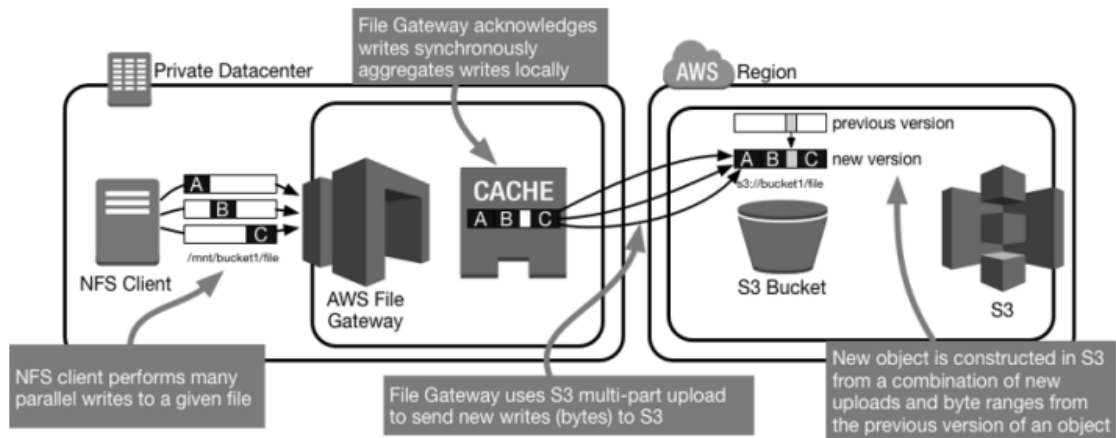


Figure 4: File gateway write operations

Source: <https://d1.awsstatic.com/whitepapers/Storage/aws-storage-gateway-file-gateway-for-hybrid-architectures.pdf> Page 9 of 18

back-end software, responsive to said configuration manager software, for handling reads and writes to disks corresponding to the I/O

back-end software, responsive to said configuration manager software, for handling reads and writes to disks corresponding to the I/O requests

requests but without communication over the I/O channel adapter, thereby separating disk operations from network and I/O traffic.

Write Operations (Write-Back Cache)

When a file is written to the file gateway over NFS, the gateway first commits the write to the local cache. At that point, it acknowledges the write success to the NFS client, which enables low latency on writes. After the write cache is populated, the file is put into the associated Amazon S3 bucket asynchronously to increase local performance of Internet transfers.

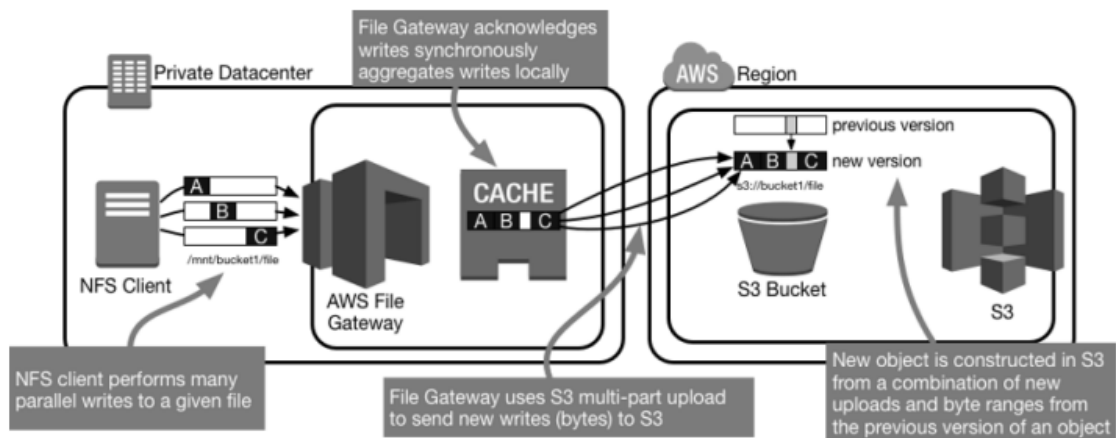
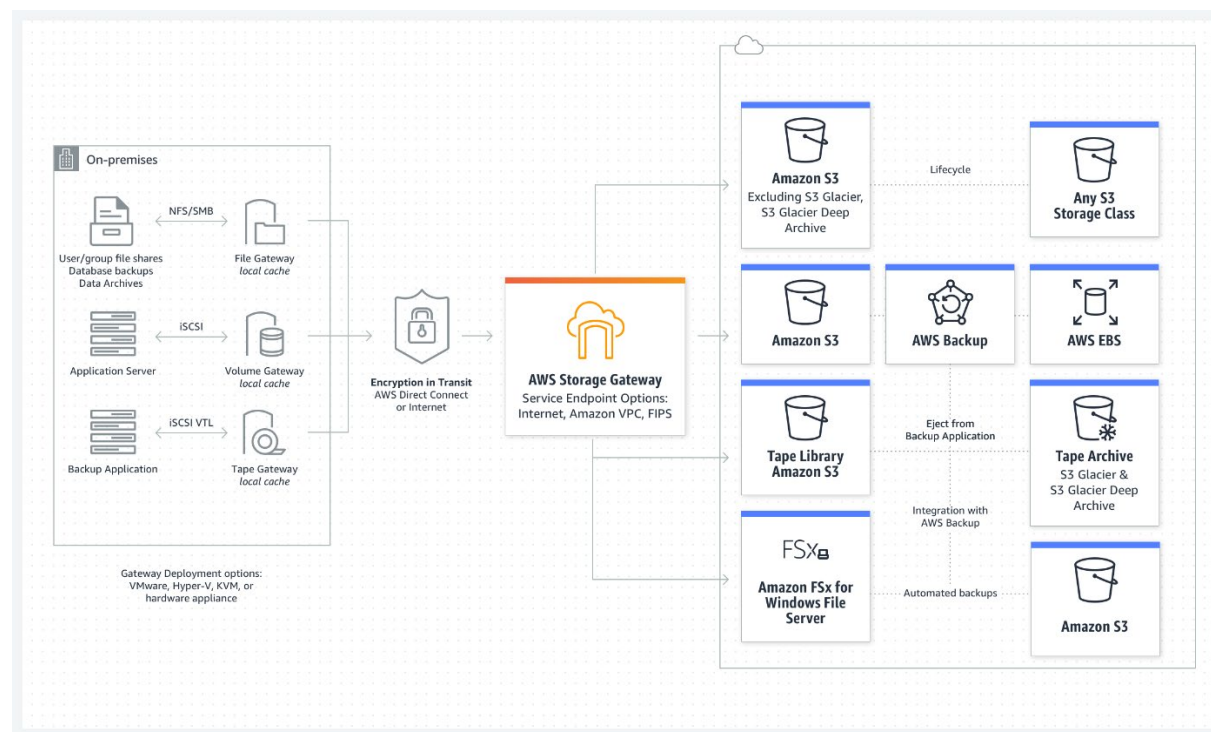


Figure 4: File gateway write operations

Source: <https://d1.awsstatic.com/whitepapers/Storage/aws-storage-gateway-file-gateway-for-hybrid-architectures.pdf> Page 9 of 18

without communication over the I/O channel adapter, thereby separating disk operations from network and I/O traffic. (via a communication path (from AWS Storage Gateway to Amazon S3) that is distinct from the I/O channel (From on-premises to AWS Storage Gateway))



How it works

Source: <https://aws.amazon.com/storagegateway/>